



**European Landscapes in Transformation
Challenges for Landscape Ecology and
Management**

**European IALE Conference 2009
70 Years of Landscape Ecology in Europe**

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Climate change and possible effects on landscape and heritage in Flanders (Belgium) – a spatial planning strategic research project

Georges ALLAERT, Marc ANTROP, Hans LEINFELDER, Veerle VAN BETVELDE,
Bjorn VERHOFSTEDE

Landscape is a dynamic phenomenon, whose character is the result of the action and interaction of natural and/or human factors (Council of Europe 2000). Climate changes influence this interaction and cause changes in landscape elements and structures, and effects natural processes and human activities. An interdisciplinary research group, led by Ghent University, started a 4 years (2009-2012) research project to develop spatial planning strategies anticipating to possible effects of climate change in Flanders (Belgium). The overall objectives are a qualitative exploration of possible spatial planning concepts for dealing with changes of spatial structures as a result of climate change, and an assessment of existing planning policy instruments and public governance procedures related to the implementation of such spatial adaptation strategies. Six work packages are designed. WP1 focuses on the spatial impact of climate change for different climate change scenarios. WP 2, 3 and 4 assess the geographically differentiated impact of climate change effects on the natural structure, landscape structure and spatial structures of human activities. In WP5, the conclusions of the previous WP's are gathered in integrated planning cases in the coastal zone of Flanders and in the sandy region of the Kempen. WP6 will formulate policy recommendations on spatial adaptation strategies in relation to climate change.

The aims of WP 3 (landscape structure) are to define a relevant landscape typology for the Flanders region, susceptible to be affected by climate change, and to assess their sensitivity. This will result in the development of adaptation strategies for spatial planning and landscape and heritage management. This work package fits into the European Landscape Convention, The European Convention on the protection of the archaeological heritage and the Convention for the Protection of the Architectural Heritage of Europe. One of the measures in the European Landscape Convention is to define landscape quality objectives for the landscapes identified and assessed in each country. These landscape quality objectives are a detailed statement of the characteristics which local people want to recognize in their surroundings.

Based on this framework, following research questions can be formulated:

- What kind of effects may be expected on the landscape?
- Are these changes significant for the landscape configuration, composition and dynamics (i.e. landscape structure)?
- How do these climate change effects influence landscape values, i.e. in relic areas, protected areas, conservation areas, ...
- How to deal with these landscape changes in landscape management and policy?

References

Council of Europe (2000) European Landscape Convention and Explanatory Report. Florence, Council of Europe.